

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A spiral separation membrane element comprising:
 - a perforated cored tube formed with a plurality of perforations;
 - a separation membrane;
 - a feed-side passage material;
 - a first permeation-side passage material; and
 - a second permeation-side passage material being spirally wound around the perforated cored tube, wherein the second permeation-side passage material is different from the first permeation-side passage material, and wherein:
 - the separation membrane, the feed-side passage material, and the first permeation-side passage material are spirally wound around the second permeation-side passage material;
 - the feed-side passage material and the first permeation-side passage material are disposed respectively on the feed side and permeation side of the separation membrane; and
 - the effective perforated-part area as calculated by multiplying the total area of the perforations in the perforated cored tube by the percentage of openings in one layer of the second permeation-side passage material is at least 1.0 time the inner cross-sectional area of the core tube.

2. (Previously presented) The spiral separation membrane element as claimed in claim 1, wherein the second permeation-side passage material is wound around the perforated cored tube so as to make substantially 2-15 laps.

3. (Previously presented) The spiral separation membrane element as claimed in claim 1 or 2, wherein the separation membrane includes at least one of a ultralow-pressure reverse osmosis membrane, ultrafiltration membrane, or microfiltration membrane.

4. (Previously presented) The spiral separation membrane element as claimed in claim 1, wherein the first permeation-side passage material is monolithic with the second permeation-side passage material.

5. (Previously presented) The spiral separation membrane element as claimed in claim 1, wherein the first permeation-side passage material is separated from the second permeation-side passage material.